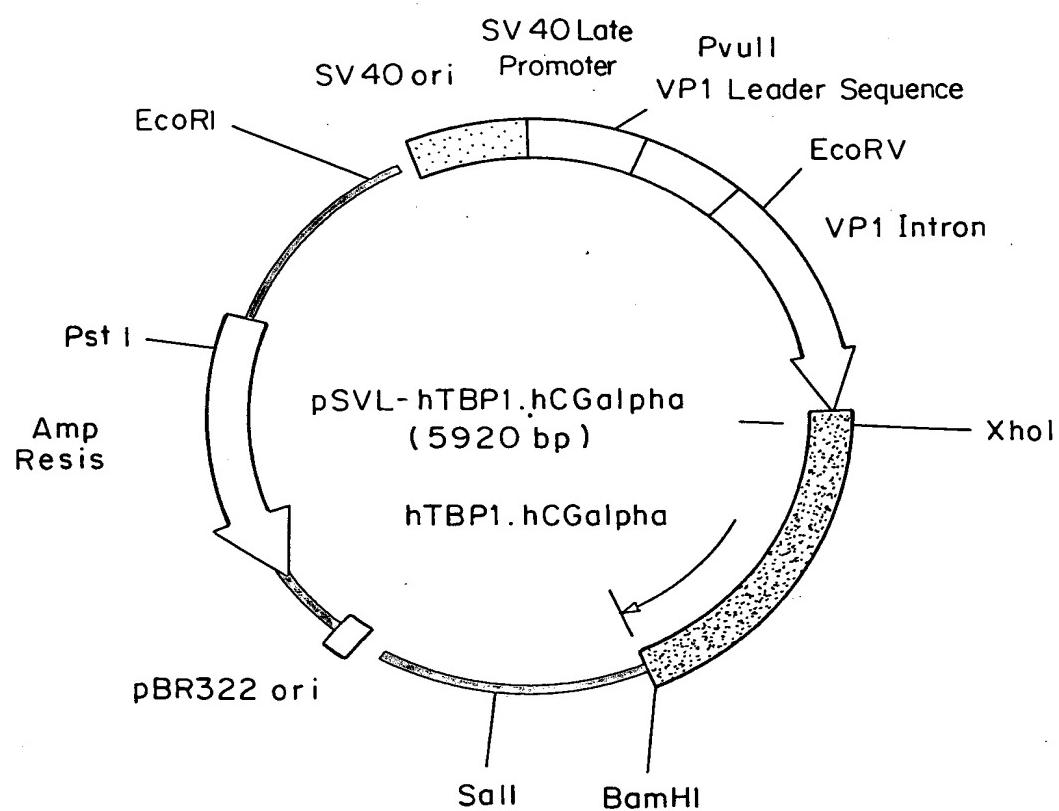


FIG. 1a(1)



F/G. 1a(2)

Xho I hGH Signal Sequence
 TCGAG ATG GCT ACA G GTAAGGCCCTAAATCCCTTGGGCACAAATGTCCTGAGGAGGGACTAACCTCAGGTTGGCTTGGCTTC
 ▶ Met Ala Thr

GAATGGGAGTATGCCCATGTAAGCCAGTATTGGCCAAATCTCAGAAAAGCTCTGGAGGGATGGAGAGAAAAACAAACAGCTCTGGAGCAAGGAGACTGGCTCTTGCTTC

CGGCTCCCTCTGTGCCCTCTGGTTCTCCCCAGGC TCC CGG ACG TCC CTG CTC GCT TTT GGC CTG CTC TGC CTG CCC TGCG CTT
 ▶ Ser Arg Thr Ser Leu Leu Ala Phe Gly Leu Cys Leu Pro Trp Leu
 +20 Asp of Processed TBPI

CAA GAG GGC AGT GCC GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA AAA
 ▶ Gln Glu Gly Ser Ala Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys Gly

ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAC GAT AGC GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC
 ▶ Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln Asp Thr Asp Cys Arg Glu Cys Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu

AGA CAC TGC CTC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC
 ▶ Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys

AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGT
 ▶ Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Asn Gly Thr Val His Leu Ser Cys

CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TRT CTA AGA GAA AAC GAG TGT GTC TCC TGT GCC GCT GCC CCA GGT
 ▶ Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ala Gly Ala Ala Pro Gly

+7 Cys of hCG alpha

TGC CCA GAA TGC ACG CTA CAG GAA AAC CCA TTC TTC CAG CCG GGT GCC CCA ATA CTT CAG TGC ATG GGC TGC TGC TTC TCT AGA GCA TAT
 ▶ Cys Pro Glu Cys Thr Leu Gln Glu Asn Pro Phe Ser Gln Pro Gly Ala Pro Ile Leu Gln Cys Met Gly Cys Cys Ser Arg Ala Tyr

CCC ACT CCA CTA AGG TCC AAG AAG ACG ATG TTG GTC CAA AAG AAC GTC ACT TCA GAG TCC ACT TGC TGT GTA GCT AAA TCA TAT AAC AGG GTC
 ▶ Pro Thr Pro Leu Arg Ser Lys Thr Met Leu Val Gln Lys Asn Val Thr Ser Gln Ser Thr Cys Cys Val Ala Lys Ser Tyr Asn Arg Val

ACA GTA ATG GGG GGT TTC AAA GTG GAG AAC CAC ACG GCG TGC CAC TGC AGT ACT TGT TAT TAT CAC AAA TCT TAA G
 ▶ Thr Val Met Gly Gly Phe Lys Val Glu Asn His Thr Ala Cys Ser Thr Cys Tyr Tyr His Lys Ser ... |
 Bam HI

FIG. 1b(1)

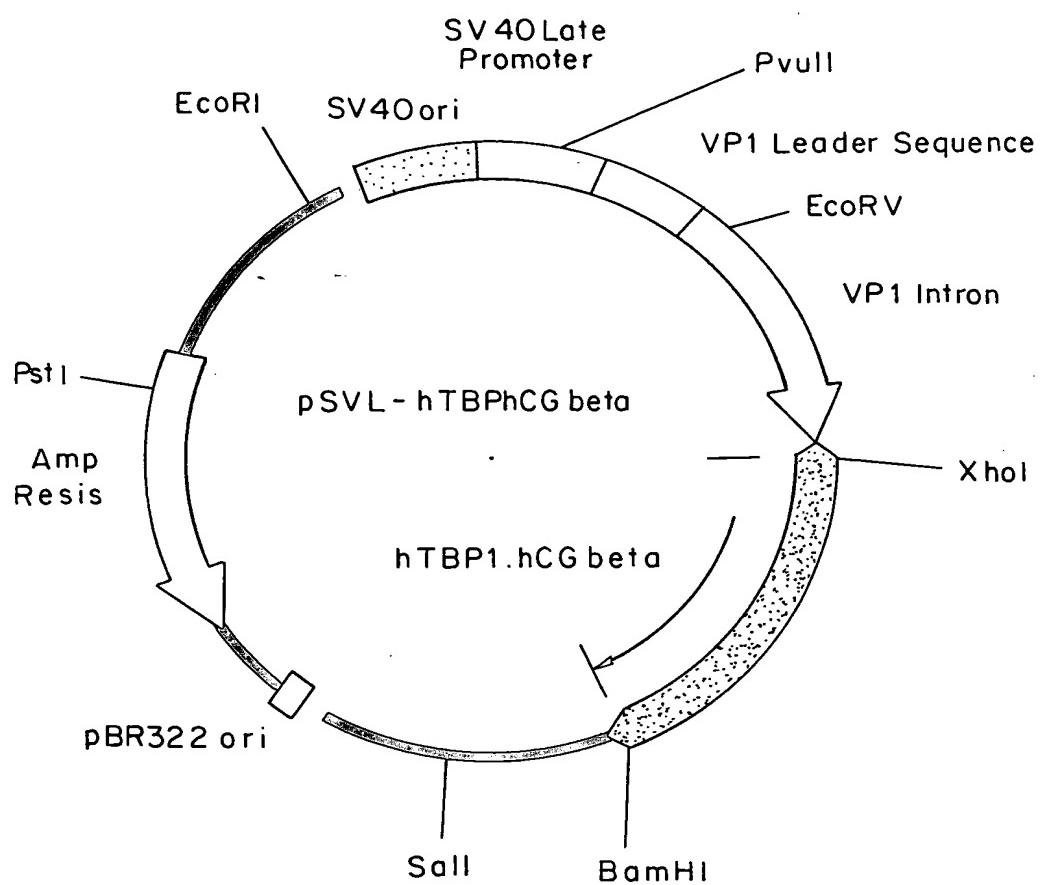


FIG. 1b(2)

hGH Signal Sequence
 Xhol CTCGAG ATG GCT ACA G STAAGGCCCTAAATCCTTTGGCACAAATGTGTCCAGGGAGGGATGGAGAGAAAACAGCTGGAGGGACTAACCTCAAGGTTGGG
 ↓ Met Ala Thr
 GCTTCTGAATGTGAGGATGCCATGTAAGCCCCATCTCAGAAAGCTCCTGGAGGGATGGAGAGAAAACAGCTGGAGGGACTAACCTCAAGGTTGGG
 hGH Intron
 CTCCTGCCTCTCCGCTCGCTCCCTCTGTGCCCTCTGCTCCAGGC TCC CGG ACG TCC CTC CTG GCT TTT GGC CTG CTC TGC CTC
 ↓ Ser Arg Thr Ser Leu Leu Ala Phe Gly Leu Leu Cys Leu
 +20 Asp of Processed TBP1
 CCC TGG CTT CAA GAG GCC AGT GCC GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA ATT TCG ATT TGT ACC
 ↓ Pro Trp Leu Gln Glu Gly Ser Ala Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Ser Ile Cys Cys Thr
 AAG TGC CAC AAA GGA ACC TAC TTG TAC GAC TGT CCA GGA CCG GAG GAT ACG GAC TGC AGG GAG GGC TCC TTC ACC
 ↓ Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln Asp Thr Asp Cys Arg Glu Ser Gly Ser Phe Thr
 GCT TCA GAA AAC CAC CTC AGA CAC TGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGT TGC ACA GTG GAC
 ↓ Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp
 CGG GAC ACC GTG TGT GGC TGC AGG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC
 ↓ Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Ser Leu Cys Leu
 ATT GGG ACC GTG CAC CTC TCC TGC TGC CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA ATT GAG TGT GTC
 ↓ Asn Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Leu Arg Glu Asn Glu Cys Val
 Linker +7 Pro of hCG beta
 TCC TGT GCT GGT CCA CGG TGC CGC CCC ATC AAT GCC ACC CTG GCT GTG GAG AAG GAG GGC TGC CCC GTG TGC ATC ACC GTC
 ↓ Ser Cys Ala Gly Ala Gly Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr Val
 AAC ACC AAC ATC TGT GCC GGC TAC TGC CCC ACC ATG ACC CGC GTG CTG CAG GGG GTC CTC CCG GCC CCT CAG GTG GTG AAC TAC
 ↓ Asn Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr
 CGC GAT GTG CGC TTC GAG TCC ATC CGG CTC CCT GGC TGC CCG CGC GGC GTG AAC CCC GTG GTC TCC TAC GCC GTG GCT CTC AGC TGT CAA
 ↓ Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Val Pro Arg Gly Val Ser Tyr Ala Val Ala Leu Ser Cys Gln
 TGT GCA CTC TGC CGC CGC AGC ACC ACT GAC TGC GGG GGT CCC AAG GAC CAC CCC TTG ACC TGT GAT GAC CCC CGC TTC CAG GAC TCC TCT
 ↓ Cys Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu Thr Cys Asp Pro Arg Phe Gln Asp Ser Ser
 TCC TCA AAG GCC CCT CCC AGC CTT CCA AGC CGA CTC CCG GGG CCC TCG GAC ACC CCG ATC CTC CCA CAA TAA
 ↓ Ser Ser Lys Ala Pro Pro Ser Ile Pro Ser Pro Ser Arg Leu Pro Gln Pro Ser Asp Thr Pro Ile Leu Pro Gln ***
 Bam HI

FIG. 2a(1)

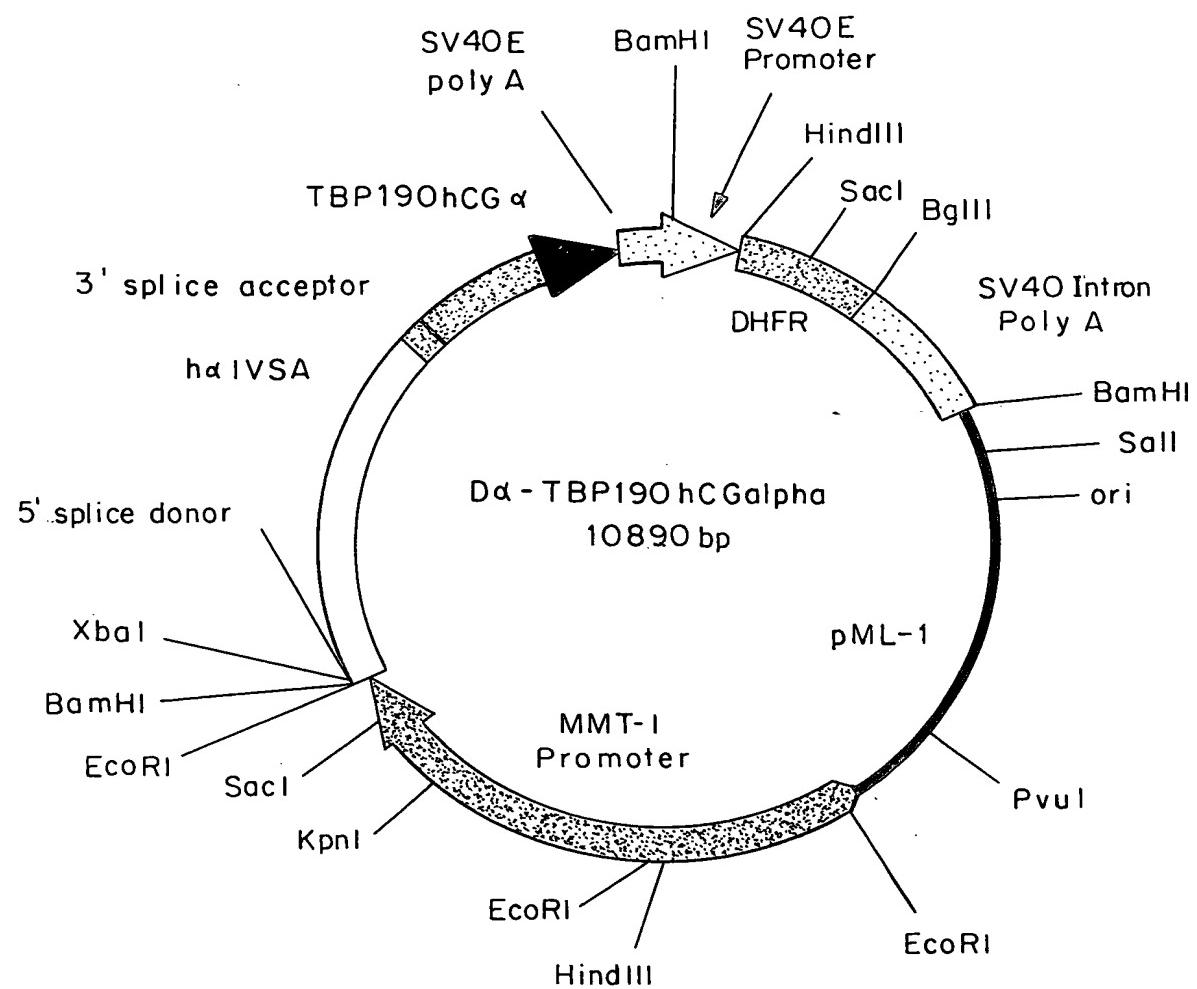
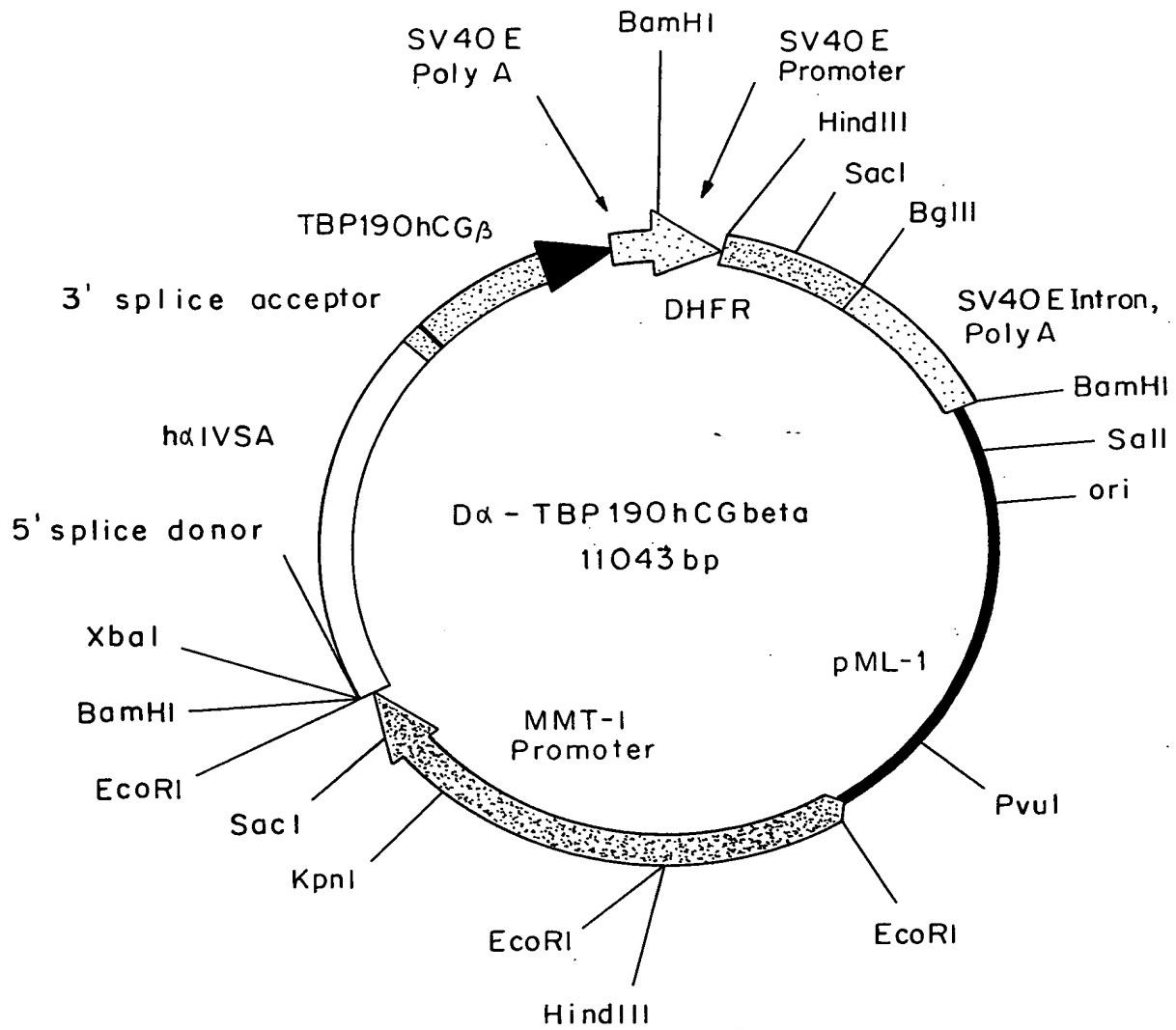


FIG. 2a(2)

FIG. 2b(1)



F/G. 2b(2)

Xhol hGH Signal Sequence hGH Intron

CTCGAG ATG GCT ACA G GTAAGGCCCTAAATCCCTTGGGCACATGTGCTTGAGGGAGAGCAGCTGTAGATGGACGGGGACTAACCTCAAGTTGGG
 ▷ Met Ala Thr

GCTCTGAATGTGAGTATGCCATGTCGCTCTGAGCCACTATTGGCCAATCTCAGAAAAGCTCTGGTCCCTGGAGGATGAGAGAAGACAAACAAACGCTCCTGTAGCAGGTAGAGTGGC

CTCTGCTCTCCGGCTCCTCTGTTGCCCTCCCAGG C TCC CGG ACG TCC CTG GCT TTT GGC CTG CTC TGC CTG
 ▷ Ser Arg Thr Ser Leu Leu Ala Phe Gly Leu Leu Cys Leu
 +20 Asp of Processed TBP1

CCC TGG CTT CAA GAG GGC AGT GCC GAT AGT GTG TGT CCA AAA TAT ATC CAC CCT CAA ATT TCG ATT TGC TGT ACC
 ▷ Pro Trp Leu Glu Gln Gly Ser Ala Asp ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Ser Ile Cys Cys Thr

AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC COG GGG CAG GAT ACG GAC TGC AGG TGT GAG AGC GGC TCC TTC ACC
 ▷ Lys Cys His Lys Gly Thr Tyr Ile Tyr Asn Asp Cys Pro Gln Asp Thr Asp Cys Arg Glu Ser Gly Ser Phe Thr

GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC
 ▷ Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp

CGG GAC ACC GTG TGT GGC TGC AGG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TGC TCA AAC CTC TGC TGC TGC CTC
 ▷ Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Ser Phe Asn Ser Leu Cys Leu

AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CTA CCC CAG ATT GAG AAT GTT CTA AGA GAA AAC GAG TGT GTC
 ▷ Asn Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Leu Arg Glu Asn Glu Cys Val

TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG AAA CAG AAC ACC GTG TGC CAG ATT GAG ATT GAG GAC TCA GGC ACT GAG GAC TCA GGC ACC
 ▷ Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr

Linker +7 Pro of beta

ACA GCT GGT GCT GGT CCA CGG TGC CGC CCC ATC ATT GCC ACC CTG GCT GTG GAG AAG GAG GGC TGC CCC GTG TGC ATC ACC GTC AAC
 ▷ Thr Ala Gly Ala Gly Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys Glu Gly Cys Pro Val Cys Ile Thr Val Asn

ACC ACC ATC TGT GCC GGC TAC TGC CCC ACC ATG ACC CGC GTG CTG CAG GGG GTC CTG CCT CAG GTG TGC AAC TAC TAC CGC
 ▷ Thr Thr Ile Cys Ala Gly Tyr Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Gln Val Val Cys Asn Tyr Arg

GAT GTG CGC TTC GAG TCC ATC CGG CTC CCT GGC TGC CGC CGC GTG AAC CCC GTG GCT CTC AGC TGT CAA TGT
 ▷ Asp Val Arg Phe Glu Ser Ile Arg Leu Pro Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser Cys Gln Cys

GCA CTC TGC CGC CGC AGC ACC ACT GAC TGC GGG GGT CCC AAG GAC CAC CCC TTG ACC TGT GAT GAC CCC CGC TTC CAG GAC TCC TCT TCC
 ▷ Ala Leu Cys Arg Arg Ser Thr Thr Asp Cys Gly Gly Pro Lys Asp His Pro Leu Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser

TCA AAG GCC CCT CCC CCC AGC CTT CCA AGC CCA TCC CGA CTC CGC GGG CCC TCG GAC ACC CCG ATC CTC CCA CAA TAA
 ▷ Ser Lys Ala Pro Pro Ser Leu Pro Ser Arg Leu Pro Gln Pro Ile Leu Pro Gln *** BamHI Xhol

FIG. 3

p55 TNFR1, TBP1 and TBP1 FUSION CONSTRUCTS

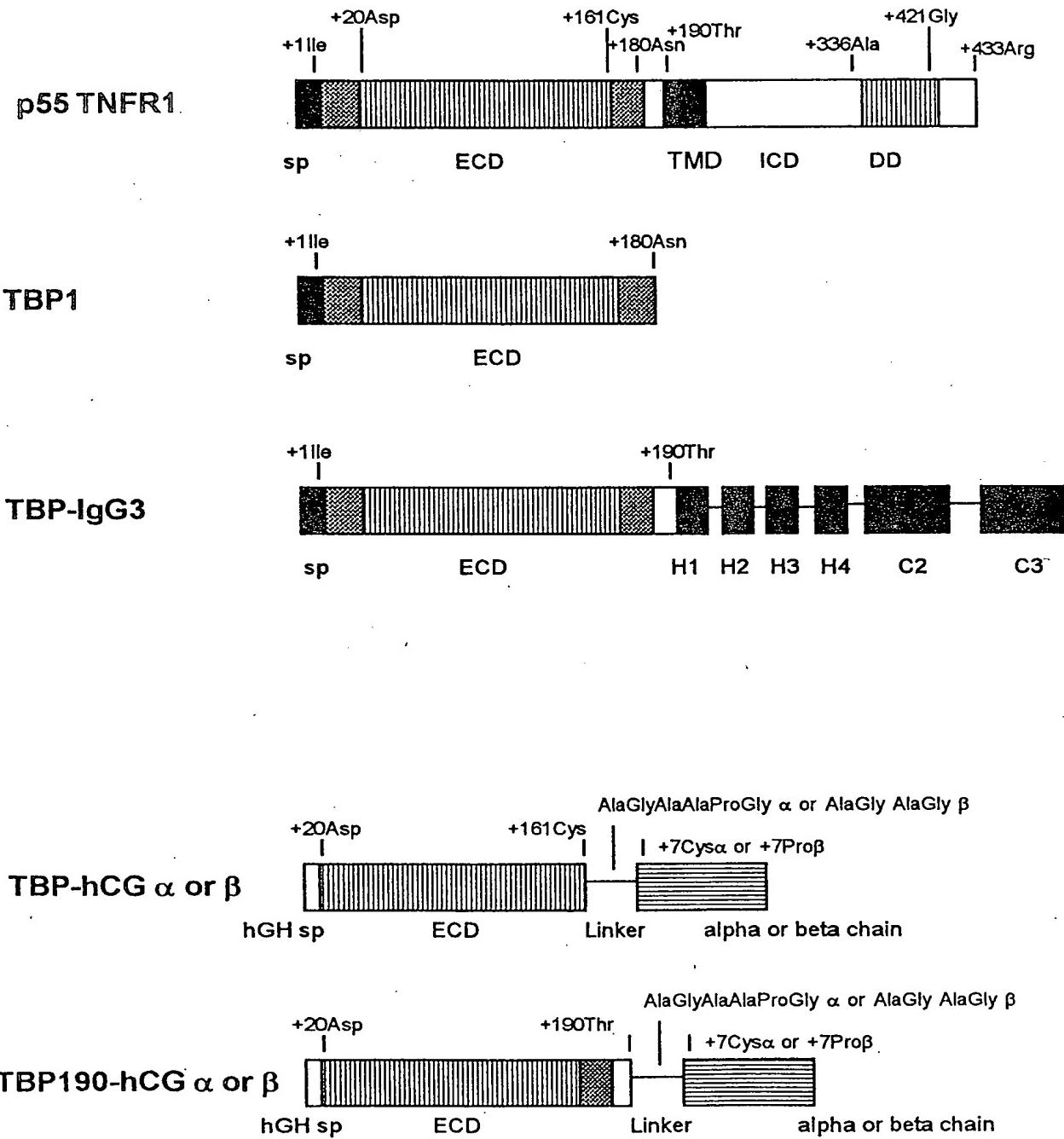
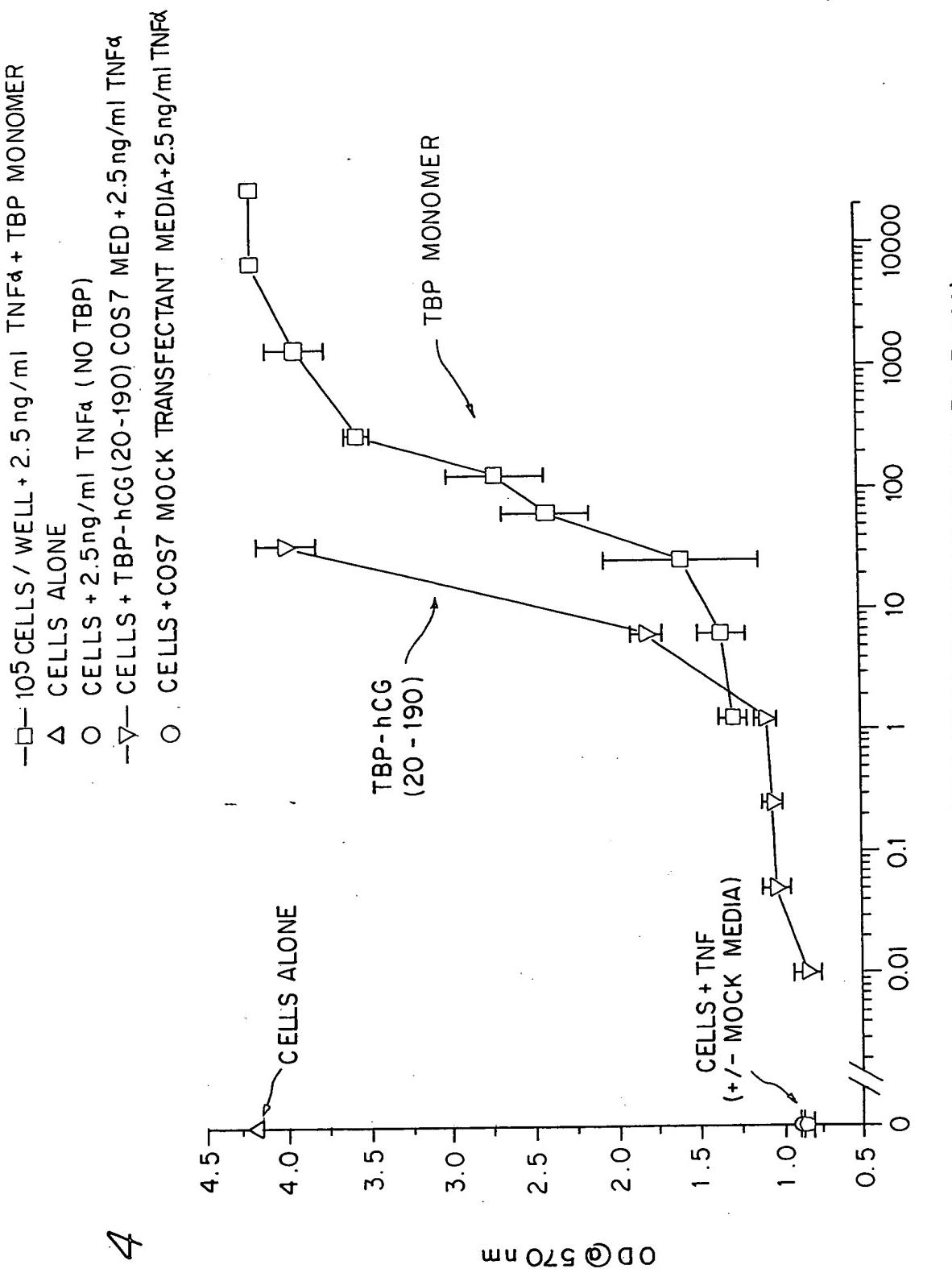


FIG. 4



ng / ml TBP EQUIVALENTS (R&D SYSTEM ELISA)

FIG. 5

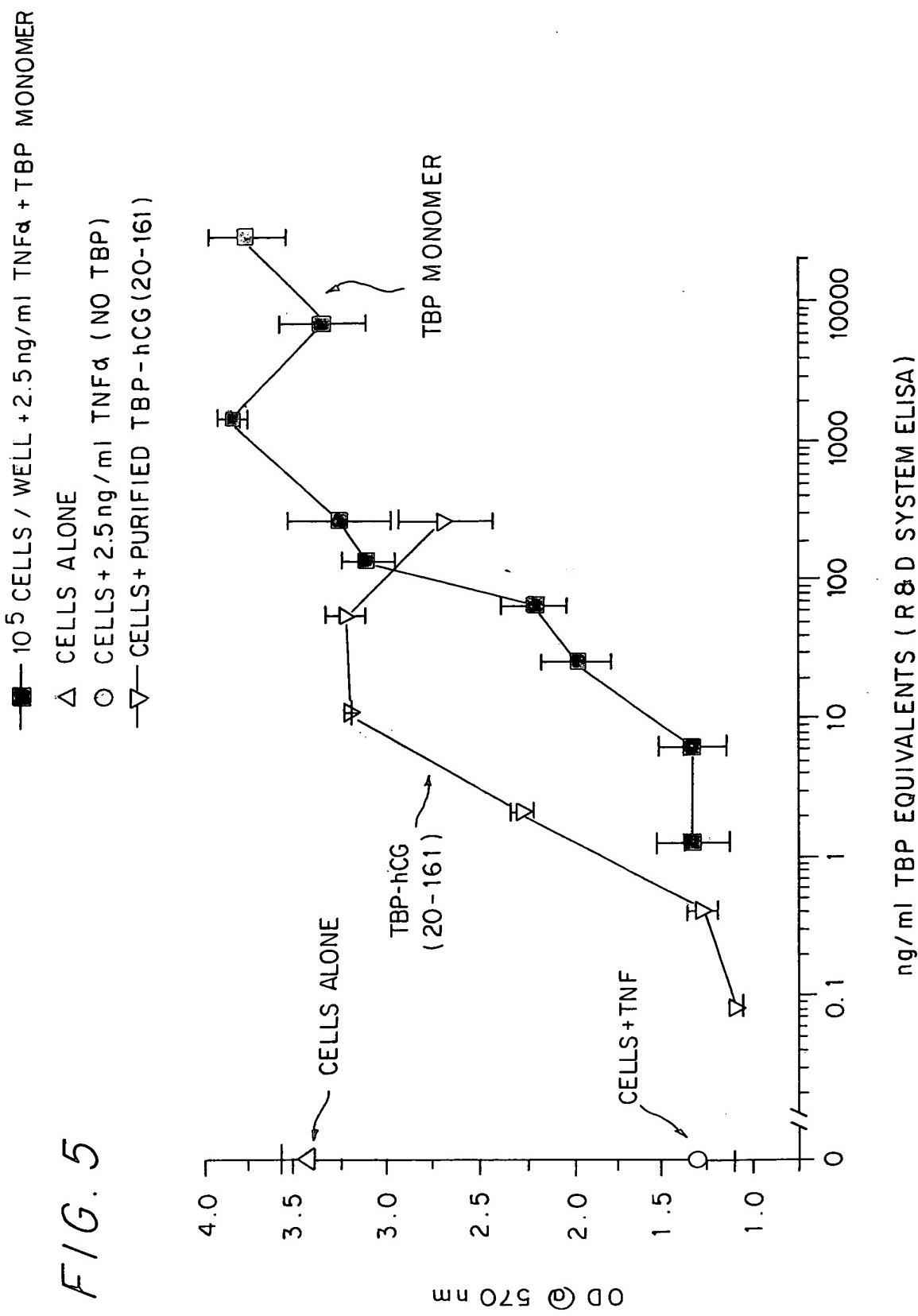


FIG. 6

